

CLAIMS

1. A pressure reducing valve for nasal supplying of a flow of air to a patient, said valve comprising a hollowed tubular member comprising;

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- a high pressure air inlet end part,
- a low pressure air outlet end part opposite to said inlet end part,
- an intermediate air venting part having perforation(s) for venting a constant and non-adjustable pressure and flow of air from the inner cavity of the tubular member into the ambient atmosphere, and

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wherein a shielding member is positioned above said perforation(s) for securing the perforation(s) from becoming obstructed and for directing the air flow from said perforation(s) towards said air inlet end part.

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2. A valve according to any of the preceding claims, wherein the air inlet part, the air outlet part and the intermediate air venting part form an integrated unit.

3. A valve according to claim 1 or 2, wherein the shielding member defines a space between an outer surface of the air venting part and an inner surface of the shielding member, said space being closed at the end towards the air outlet end part and open at the opposite end towards the air inlet end.

4. A valve according to any of claims 1-3, wherein the shielding member comprises a capsule-like member to be attached to the tubular member, the capsule having an internal peripheral portion with a flange section for shielding said perforation(s) and an attachment section for attaching it to the tubular member, the radial size of the flange section being larger than the radial size of the part of the tubular member comprising the perforation(s) whereas the radial size of the attaching section being equal to or smaller than the radial size of a part of the tubular member located between the perforation(s) and the air outlet.

5. A valve according to any of claims 1-4, wherein the tubular member comprises an external peripheral portion between the high pressure air inlet end part and the low pressure air outlet, said external peripheral portion comprising a stepped configuration or a flange for receiving and holding said attachment section of the shielding member.

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6. A valve according to any of claims 1-5, wherein the shielding member is a tubular body of revolution surrounding the air venting part.
7. A valve according to any of the preceding claims, wherein the shielding member is
5 a separate part attached to the tubular member.
8. A valve according to any of the preceding claims, wherein the shielding member is fixed attached to the tubular member.
- 10 9. A valve according to any of claims 3-8, wherein the distance between said outer surface of the air venting part and said inner surface of the shielding member is between 0.5-5 mm, such as 1 or 2 mm.
10. A valve according to any of the preceding claims, wherein the diameter of the inlet
15 end part is 4-8 mm, such as 6 mm.
11. A valve according to any of the preceding claims, wherein the diameter of the outlet end part is 2-5 mm, such as 3 mm.
- 20 12. A valve according to any of the preceding claims, wherein the perforations comprise four air passages distributed around the circumference of the tubular member.
13. A valve according to claim 12, wherein the angle between the centre lines of the
25 air passages is substantially 90°.
14. A valve according to claim 13, wherein the diameter of the one pair of oppositely arranged air passages is different from the diameter of the other pair of oppositely arranged air passages.
- 30 15. A valve according to any of the preceding claims, wherein the diameter of the perforation(s) is between 1-10 mm, such as 2-9 mm, such as 3-8 mm, such as 4-7 mm, such as 5-6 mm.
- 35 16. A valve according to any of the preceding claims, wherein the valve is disposable.

17. A valve according to any of the preceding claims, wherein the inner cavity and the perforation(s) of the air venting part are shaped and dimensioned so as to reduce an air inlet overpressure of 6-7 bars to an air outlet overpressure of 2-7 cm water column.

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18. A valve according to any of the preceding claims, wherein the air venting part is adapted to vent 50% or more of the air flowing through the inner cavity of the valve into the ambient atmosphere.

10 19. A valve according to any of the preceding claims, wherein the low pressure air outlet comprise a flange for connecting a nasal prong section thereto.

20. A valve according to any of the preceding claims, wherein the low pressure air outlet is constituted by a nasal prong section having first and second nasal prong air
15 outlets.

21. A method of providing gas to a CPAP (Continuous Positive Airway Pressure) valve, said method comprising conveying gas under a first pressure from a gas supply to at least two gas passages, one passage extending towards an outlet in a direction
20 towards a patient and the other passage extending towards an outlet in an opposite direction so as to reduce the pressure of the air coming out of the outlet to a pressure level below said first pressure.

22. A method of providing gas to a CPAP (Continuous Positive Airway Pressure) valve,
25 said method comprising conveying gas under a first pressure from a gas supply through a valve according to any of claims 1-20.